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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/445,845	06/11/2001	Timo Aittola	639321.005(M)	1440

7590 12/07/2006

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EXAMINER

VU, THONG H

ART UNIT PAPER NUMBER

2142

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/445,845

Applicant(s)

AITTOLA, TIMO

Examiner

Thong H. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 and 48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46, 48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

1. Claims 1-46 and 48 are pending.
2. This application has claimed the priority of 9/24/1998.

Response to Arguments

3. Applicant's arguments with respect to claims 1-46,48 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2,5-25,27-42,44-46,48 are rejected under 35 U.S.C. 102(e) as being anticipated by Edelstein et al [Edelstein, 5,764,906].

4. As per claim 1, Edelstein discloses a method for serving requests for Internet information files in an Internet caching system, comprising the steps of:

receiving, at a local Internet cache server, a user request from a user for an Internet information file [Edelstein, client request to Internet, Local server, col 13 lines 24-42, Fig 6];

in response to the received request, making a query for said information file, if said information file has not been cached by said local server [Edelstein, the local server will query its cached resource aliases, col 12 line 15];

in response to a reply to said query, making a file request for said information file, wherein said, file request is directed to a feeder means (i.e.: a central registry) if said reply indicates that a central file server, storing cached Internet information files, has said information file cached [Edelstein, if the local server does not have that data cached, it requests it of the central or root server, col 11 lines 44-65, Fig 5]; and

querying, from said feeder means in response to said file request, said central file server for said information file, in order to decrease the load on said central file server [Edelstein, the system could search the global, the local and the nick-name caches for a match and return all records corresponding to any match, col 13 lines 43-63].

5. Claims 18,39 contain the identical limitations set forth of claim 1. Therefore, claims 18,39 are rejected for the similar rationale set forth in claim 1.

6. As per claim 2, Edelstein discloses said query is performed by said local cache server in accordance with a protocol used for communicating between Internet Cache servers [Edelstein, caching data, Internet, local server, col 12 line 63-col 13 line 23].

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7. As per claim 5, Edelstein discloses said query is directed by said local cache server to said feeder means, which feeder means as a response returns said reply [Edelstein, the Internet Central Registry, col 13 lines 43-63].

8. As per claim 6, Edelstein discloses deriving, at said feeder means, a query number corresponding to said information file being concerned in said query [Edelstein, the Internet Central Registry, col 13 lines 43-63].

9. As per claim 7, Edelstein discloses using the derived query number when querying said central file server for said information file [Edelstein, resource alias serial number, col 11 lines 40-42].

10. As per claim 8, Edelstein discloses said query provides an alphanumerical string associated with said information file, said string being used in said step of deriving said query number [Edelstein, resource alias serial number, col 11 lines 40-42].

11. As per claims 9 and 11, Edelstein discloses said alphanumerical string is a Uniform Resource Locator (URL), said query number is derived from said URL and at least part of a header information field of said file request [Edelstein, URL, col 8 line 40].

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12. As per claim 10, Edelstein discloses said file request provides an alphanumerical string associated with said information file, said string being used by said feeder means deriving a query number corresponding to said information file.

13. As per claim 12, Edelstein discloses creating an indexed table having an entry for each Internet information file being cached at said central file [Edelstein, index, col 11 line 3].

14. As per claim 13, Edelstein discloses performing a search in said indexed table for said information file [Edelstein, index, col 11 line 3]; and indicating in said reply to said query whether or not said information file was found during said search [Edelstein, if the local server does not have that data cached, col 11 lines 44-65].

15. As per claim 14, Edelstein discloses said querying step comprises using the Structured Query Language (SQL) when querying said central file server for said information file as inherent feature of database [Edelstein, database 301, Fig 3].

16. As per claim 15, Edelstein discloses selecting, based upon an original host name or IP-address of said information file, a central file server out of a set of central file servers, each server of said set being arranged to cache Internet information files with original host names or IP-addresses within a predefined range [Edelstein, a list of

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proximate Resource, col.12 lines 46-63]; and querying the selected central file server for said information file [Edelstein, query, col 12 lines 15].

17. As per claim 16, Edelstein discloses selecting, based upon said query number derived for said information file, a central file server out of a set of central file servers, each server of said set being arranged to cache Internet information files with corresponding query numbers within a predefined range [Edelstein, resource alias serial number, col 11 lines 40-43; create a list of resource Aliases, col 12 lines 46-62]; and querying the selected central file server for said information file [Edelstein, query, col 12 lines 15].

18. As per claim 17, Edelstein discloses retrieving, at said local cache server, said information file from its origin server if said reply to said query indicates that said information file is not cached at said central file server [Edelstein, not a valid resource, col 12 lines 46-62]; caching said information file at said local cache server; and updating said central file server by requesting a copy of said information file from said local cache server and caching said copy in said central file server [Edelstein, a copy of resource, col 12 lines 44].

19. As per claim 19, Edelstein discloses said first means is arranged to operate in accordance with a layer three Internet protocol [Edelstein, Internet, col 12 line 66].

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20. As per claim 20, Edelstein discloses said third means is arranged to use the Structured Query Language (SQL) when querying for said Internet information file as inherent feature of database [Edelstein, database 301, Fig 3].

21. As per claims 21,27 Edelstein discloses said alphanumeric string is included in said request received from said local cache server using said query derived by said second means [Edelstein, the local server will query its cached resource, col 12 lines 1-45].

22. As per claims 23 and 29, Edelstein discloses said query comprises a query number, the query number being derived by applying a hash algorithm to said string and to said part of said header information field [Edelstein, hash coding, col 11 lines 38].

23. As per claim 24, Edelstein discloses said Feeder includes fourth means for receiving a query for an Internet information file from said local cache server; and fifth means for providing said local cache server with a reply to the received query as inherent feature of cache server.

24. As per claim 25, Edelstein discloses said fourth means and said fifth means are arranged to operate in accordance with a protocol used for communicating between Internet cache servers [Edelstein, Internet community 601, Fig 6].

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25. As per claim 30, Edelstein discloses said Feeder includes a table with a copy of the full index of all Internet information files cached at said-central file server [Edelstein, index, col 11 line 3].

26. As per claim 31, Edelstein discloses said reply to said received query by said fifth means is based on the content of said table or database [Edelstein, database and query, col 10 line 64-col 11 line 20].

27. As per claim 32, Edelstein discloses requesting means for requesting a copy of an Internet information file stored in a local cache server; and storing means for storing the thereby received copy in a central file-server as inherent feature of cache server.

28. As per claim 33, Edelstein discloses said requesting means are arranged to request a copy of an information file from its origin server, if a local cache server storing said information file resides behind a firewall as inherent feature of Internet.

29. As per claim 34, Edelstein discloses said Updater is arranged to communicate with said Feeder for receiving an order to request said copy of said information file [Edelstein, a copy of resource, col 12 lines 44].

30. As per claims 35,48 Edelstein discloses said Updater includes a list of known uncachable information files, for which files a copy should not be requested as inherent feature of updated [Edelstein, updated, col 8 lines 25-45].

31. As per claim 36, Edelstein-Harel disclose said Feeder is implemented by a lower end computer and said central file server is implemented by a higher end computer as inherent feature of server computers.

32. As per claim 37, Edelstein discloses said Updater is implemented by a lower end computer and said central file server is implemented by a higher end computer as inherent feature of updated [Edelstein, updated, col 8 lines 25-45].

33. As per claim 38, Edelstein discloses said Updater and at least one Feeder are implemented by a single lower end computer as inherent feature of updated.

34. As per claim 40, Edelstein discloses said feeder means are included in said central cache site [Edelstein, the central registry server, col 6 lines 7-14].

35. As per claim 41, Edelstein discloses each of said feeder means includes a plurality of Feeders, each of said Feeder interconnecting a subset of said set of local cache servers with said central file server [Edelstein, a set of servers, col 10 lines 15-36].

36. As per claim 42, Edelstein discloses said central cache site is arranged to serve a defined set of local cache servers, which set in turn serves a linguistically and culturally homogenous user community as inherent feature of value added server [Edelstein, col 5 line 50-col 6 line 6].

37. As per claim 44, Edelstein discloses each of said Feeder includes a table with a copy of the full index of all information files cached at said central cache site [Edelstein, index, col 11 lines 3].

38. As per claim 45, Edelstein discloses said central file server includes cached Internet information files having original host names within a predefined range [Edelstein, create a list of proximate resource, col 12 lines 50].

39. As per claim 46, Edelstein discloses updater means, interconnecting said central file server with at least one local cache server of said set, for retrieving a copy of an Internet information file from its origin server or from said at least one local cache server and for storing said copy in said central file server [Edelstein, copies of records, col 14 lines 38-43].

40. As per claim 22, Edelstein discloses said query is derived from said alphanumeric string and at least part of a header information field of said request

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received from said local cache server using said query derived by said second means [Edelstein, query, col 12 line 14].

41. As per claim 28, Edelstein discloses said query derived by said second means is derived from said alphanumerical string and at least part of a header information field of said query received from said local cache server [Edelstein, serial number field, col 11 lines 40-43].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

42. Claims 3-4,26,43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edelstein et al [Edelstein, 5,764,906] in view of Wessels et al [Cache Digest, April 1998].

43. As per claims 3 and 4, Edelstein discloses an Internet environment wherein a client request information to a home/central server and a plurality of local cache server [Edelstein, col 10 lines 15-36, Fig 1].

However Edelstein does not explicitly detail a protocol used is the Internet Cache Protocol or Cache Digest.

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It was well-known in the art that Internet Cache protocol (ICP) or Cache Digest was used among Web cache server to improve the exchange queries and replies [Wessels, page 1].

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to realize that using the ICP or Cache Digest would provide the cache knows whether or not the neighbor holds the requested data. Doing so would enhance the data flow process between Web client nodes, local cache servers and home/central servers over the large network.

44. Claims 26,43 contain the similar limitations set forth of claims 3-4. Therefore, claims 26,43 are rejected for the similar rationale set forth in claims 3-4.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong H. Vu whose telephone number is 571-272-3904. The examiner can normally be reached on 6:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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